Amended Claims

1. (Canceled)

2. (Currently amended) ~~The~~ A method ~~as set forth in claim 1, further including~~ of manufacturing a light emitting diode, the method comprising:

depositing a plurality of semiconductor layers on a deposition substrate;

removing at least some of the deposited semiconductor layers from a selected trench region of the deposition substrate to define a light-emissive mesa;

forming an electrode on the mesa;

flip-chip bonding the mesa to a first electrical bonding pad of a thermally conductive support;

removing the deposition substrate; and

subsequent to the removing of the deposition substrate, depositing a light-transmissive, electrically conductive window layer on a surface of the mesa opposite the electrode, the window layer extending laterally to electrically contact a second electrical bonding pad of the thermally conductive support to define an electrical path between the mesa and the second electrical bonding pad.

3. (Original) The method as set forth in claim **2**, further including:

prior to the depositing of a window layer, depositing an insulating material between the second electrical bonding pad and the mesa, the window layer extending laterally over the insulating material.

4. (Currently amended) The method as set forth in claim **2**, wherein the depositing of the plurality of semiconductor layers comprises depositing said semiconductor layers by a deposition technique selected from the group consisting of metalorganic chemical vapor deposition and molecular beam epitaxy, and the depositing

of a window layer includes[[:]] depositing at least one window layer by liquid phase epitaxy.

5. (Original) The method as set forth in claim 2, wherein the depositing of a window layer includes:

non-epitaxially depositing at least one window layer.

6. (Currently amended) The method as set forth in ~~claim 1~~ claim 2, wherein ~~the removing of at least some of the deposited semiconductor layers to define a light-emissive mesa defines a plurality of mesas, and~~ the removing of the deposition substrate effects a physical separation of the ~~mesas~~ mesa wherein the ~~mesas define~~ mesa defines a ~~plurality of~~ separated light emitting diode device ~~dice in which each device~~ die ~~is~~ flip-chip bonded to the thermally conductive support.

7. (Currently amended) The method as set forth in ~~claim 1~~ claim 2, wherein the removing of at least some of the deposited semiconductor layers from a selected trench region includes retaining at least one semiconductor layer that is substantially electrically conductive in the trench region, and the flip chip bonding further includes:

flip-chip bonding a second electrical bonding pad to the retained semiconductor layer in the trench region, wherein the retained semiconductor layer defines an electrical path between the mesa and the second bonding pad.

8. (Original) The method as set forth in claim 7, further including:

prior to the flip chip-bonding, depositing an insulating material at least on sidewalls of the mesa.

9. (Original) The method as set forth in claim 7, wherein the deposition substrate is a GaAs substrate, the plurality of semiconductor layers include group

III-phosphide layers, and the retained semiconductor layer includes a layer that contains aluminum.

10-17. (Canceled)

18. (Currently amended) A method of manufacturing a flip-chip light emitting diode, the method including:

epitaxially depositing semiconductor layers that define a light emitting electrical junction on a principle surface of an epitaxy substrate;

forming a light-emitting device mesa from the epitaxially deposited semiconductor layers;

forming a first electrode on a portion of the device mesa distal from the epitaxy substrate, the first electrode electrically contacting the device mesa;

disposing a second electrode on the principle surface of the substrate;

flip-chip bonding first and second electrodes to bonding pads;

removing the epitaxy substrate; and

subsequent to the removing of the epitaxy substrate, ~~arranging~~ depositing an electrically conductive, light-transmissive window layer over the device mesa and the second electrode, the window layer forming an electrical connection between the device mesa and the second electrode.

19-22. (Canceled)

23. (Original) The method as set forth in claim **18**, wherein the removing of the epitaxy substrate includes:

etching the epitaxy substrate using one of wet chemical etching and plasma etching.

24-25. (Canceled)

26. (Currently amended) ~~The~~ A method ~~as set forth in claim 24, further including~~ of manufacturing a light emitting diode, the method including:

depositing a plurality of semiconductor layers including group III-phosphide layers on a GaAs substrate;

removing at least some of the deposited semiconductor layers from a selected trench region of the deposition substrate to define a light-emissive mesa;

forming an electrode on the mesa;

flip-chip bonding the mesa to a first electrical bonding pad of a thermally conductive support;

removing the GaAs substrate; and

subsequent to the removing of the ~~deposition~~ GaAs substrate, depositing a light-transmissive, electrically conductive window layer on a surface of the mesa opposite the electrode.

27. (Previously presented) The method as set forth in claim **26**, wherein the deposited light-transmissive, electrically conductive window layer extends laterally to electrically contact a second electrical bonding pad of the thermally conductive support to define an electrical path between the mesa and the second electrical bonding pad.

28. (Previously presented) The method as set forth in claim **26**, wherein the depositing of the light-transmissive, electrically conductive window layer includes:

non-epitaxially depositing at least one light-transmissive, electrically conductive window layer.

29. (Previously presented) The method as set forth in claim **26**, wherein the depositing of a window layer includes:

depositing at least one GaP or AlGaAs window layer by liquid phase epitaxy.